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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/016,949	12/13/2001	Brian Fahs	10019980-1	7384
759	90 06/15/2005		EXAM	INER
HEWLETT-PACKARD COMPANY Intellectual Property Administration			KANG, INSUN	
P.O. Box 27240			ART UNIT	PAPER NUMBER
Fort Collins, Co	O 80527-2400		2193	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No	. Applicant(s)	
	10/016,949	FAHS ET AL.	
Office Action Summary	Examiner	Art Unit	
	. Insun Kang	2193	•
The MAILING DATE of this communicate Period for Reply	ion appears on the cove	r sheet with the correspondence add	dress
A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNICA* - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) date if NO period for reply is specified above, the maximum statutor. Failure to reply within the set or extended period for reply will, any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	TION. CFR 1.136(a). In no event, howation. ys, a reply within the statutory my period will apply and will expire by statute, cause the application	rever, may a reply be timely filed nimum of thirty (30) days will be considered timely SIX (6) MONTHS from the mailing date of this co to become ABANDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed or	n <u>11 January 2005</u> .		
2a)⊠ This action is FINAL . 2b)[This action is non-fir	al.	
3) Since this application is in condition for	allowance except for fo	mal matters, prosecution as to the	merits is
closed in accordance with the practice u	ınder <i>Ex parte Quayl</i> e,	1935 C.D. 11, 453 O.G. 213.	
Disposition of Claims			
4)⊠ Claim(s) 1-18 is/are pending in the appli	ication.		
4a) Of the above claim(s) is/are w		ration.	•
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-18</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction	and/or election require	ement.	
Application Papers			•
9)☐ The specification is objected to by the Ex	caminer.	•	
10) The drawing(s) filed on is/are: a)		jected to by the Examiner.	
Applicant may not request that any objection			
Replacement drawing sheet(s) including the	correction is required if the	ne drawing(s) is objected to. See 37 CF	R 1.121(d).
11) The oath or declaration is objected to by	the Examiner. Note th	e attached Office Action or form PT	O-152.
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for t	foreign priority under 3	5115 C & 119(a) (d) or (f)	
a) All b) Some * c) None of:	oroign phonty under o	5 5.5.5. § 1 15(a)-(u) 61 (i).	
1. Certified copies of the priority doc	uments have been rec	eived.	
2. Certified copies of the priority doc			
		ave been received in this National	Stage
application from the International			- 10 9 -
* See the attached detailed Office action fo	·		
Attachment(s)	🖵		
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-9 	4) <u>L</u> 948)	Interview Summary (PTO-413) Paper No(s)/Mail Date	
3) Information Disclosure Statement(s) (PTO-1449 or PTO	/SB/08) 5) <u></u>	Notice of Informal Patent Application (PTO	-152)
Paper No(s)/Mail Date	6) [Other:	
S. Patent and Trademark Office PTOL-326 (Rev. 1-04)	Office Action Summary	Part of Paper No./Mail Da	ite 06092005

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DETAILED ACTION

- 1. This action is in response to the amendment filed 1/11/2005.
- 2. As per applicant's request, claims 1, 3, 4, 9, and 10 have been amended. Claims 1-18 are pending in the application.

Specification

3. The objection to the specification has been withdrawn due to the amendment to the Specification.

Claim Rejections - 35 USC § 112

4. The rejection to claims 3-6 and 9-12 has been withdrawn due to the amendment to the claims.

Claim Rejections - 35 USC § 101

5. The rejections to claims 1-6 have been withdrawn due to the amendments to the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 7. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hundt ("HP Caliper An Architecture for Performance Analysis Tools," 8/2000).

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Per claim 1:

Hundt discloses:

- identifying an inlined function in computer code ("Probes are inlined into functions and

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instrumented functions are relocated...Function entry points are identified by analysis of

the unwind information tables (sometimes called exception tables), the procedure

lookup tables, and the symbol table...The analysis may still miss some function entry

points because of a lack of unwind information and symbolic information. However,

these functions are discovered dynamically. Whenever a call target cannot be found in

the internal function dictionary during instrumentation, a break is inserted at the target

address of a call branch, assuming it to be a function entry point," section 4.1 Algorithm)

-and using a performance analysis tool to perform a desired task on said inlined function

in response to executing a breakpoint associated with said inline function ("The function

is analyzed for instrumentability, probe codes are inlined into the function...counters are

created, and an instrumented version of the function is moved to shared memory. The

original function's entry point I patched with a long branch instruction to its instrumented

version," section 4.1 Algorithm) as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Hundt teaches:

-creating a data structure which maintains location information for said inlined function

and information related to said desired task for said inlined function ("The function is

analyzed for instrumentability, probe codes are inlined into the function, IP-relative references are updated, counters are created, and an instrumented version of the function is moved to shared memory. The original function's entry point I patched with a long branch instruction to its instrumented version," section 4.1 Algorithm) as claimed.

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Per claim 3:

The rejection of claim 1 is incorporated, and further, Hundt teaches:

-using said performance analysis tool to perform instrumentation on said inlined function

("The process runs until it hits one of the inserted break instructions at the entry point of

a function...and the instrumentation process begins at the current function," section 4.1.

Algorithm) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Hundt teaches:

- using said performance analysis tool to perform mapping of samples to said inlined

function ("The Caliper Support Library offers a framework of services and tools for

dynamic instrumentation and sampling," page 3 last paragraph; "a strong set of tools

and methods used to analyze and monitor run-time behavior of a program. Statistical

sampling and binary instrumentation are two of the major techniques," page 1

paragraph 4) as claimed.

Per claim 5:

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The rejection of claim 3 is incorporated, and further, Hundt teaches:

- said performance analysis tool is comprised of an instrumentation application ("The Caliper Support Library offers a framework of services and tools for dynamic instrumentation and sampling," page 3 last paragraph; "a strong set of tools and methods used to analyze and monitor run-time behavior of a program. Statistical sampling and binary instrumentation are two of the major techniques," page 1 paragraph 4) as claimed.

Per claim 6:

The rejection of claim 4 is incorporated, and further, Hundt teaches:

- said performance analysis tool is comprised of a sampling application ("The Caliper Support Library offers a framework of services and tools for dynamic instrumentation and sampling," page 3 last paragraph; "a strong set of tools and methods used to analyze and monitor run-time behavior of a program. Statistical sampling and binary instrumentation are two of the major techniques," page 1 paragraph 4) as claimed.

Per claims 7-12, they are the computer-readable medium versions of claims 1-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-6 above.

Per claims 13-18, they are the apparatus versions of claims 1-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-6 above.

Response to Arguments

8. Applicant's arguments filed 1/11/2005 have been fully considered but they are not persuasive.

Per claims 1, 7, and 13:

The Applicant states Hundt does not disclose or suggest "using a performance analysis tool to perform a task on an inlined function" and "conventional performance analysis tools could not be used to analyze inlined functions" and Hundt is simply an example of the conventional art (Remark, 9)."

In response, the claims simply recite, "using a performance analysis tool." Using a tool does not make the claims patentably distinct over the prior art. The claims do not specifically recite what the desired task means, how the performance analysis tool in the instant claims is different from the tool in Hundt, and how the desired task on the inlined function can be performed by using the performance analysis tool, as the applicant argues that the "conventional performance analysis tools could not be used to analyze inlined functions (remark, 9)." Further, Hundt disclose HP Caliper that is an "architecture for performance analysis tools" that "deal with executable (binary) programs (abstract)" and a "tool built with HP Caliper runs as a Developer Tool process, controlling an Application process via the operating system's debug interface (3. HP

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Caliper Architecture)." Hp Caliper uses dynamic instrumentation where "probes are inlined into functions," "every function's entry point is patched with a break instruction (4.1. Algorithm)," and control transfers to HP caliper to retrieve statistics, counters, and other measurement results, counters upon process termination or user request (4.1. algorithm). Therefore, Hundt disclose using a performance analysis tool to perform a desired task on the inlined function as claimed. If applicant means anything more, this must be brought out in the claims to further clarify the invention.

Per claims 2-6, 8-12, and 14-18:

The applicant states that claims 2-6, 8-12, and 14-18 are allowable as being dependent on the allowable base claims. As has been shown above, the rejections of the independent claims 1, 7, and 13 by Hundt are maintained, therefore, the argument that claims 2-6, 8-12, and 14-18 are allowable as being dependent on the allowable base claims is considered moot. Accordingly, the rejections of claims 2-6, 8-12, and 14-18 are also maintained.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Insun Kang whose telephone number is 571-272-3724.

The examiner can normally be reached on M-F 7:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should

be directed to the TC 2100 Group receptionist: 571-272-2100.

I. Kang Examiner

6/9/2005

Varen- Cm.

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KAKALI CHAKI SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100